## Data and Sample Policy Division of Earth Sciences National Science Foundation

Division of Earth Sciences

The Division of Earth Sciences is committed to the establishment, maintenance, validation, description, and distribution of high-quality, long-term data sets. Per the NSF policy on Disseminiation and Sharing of Research Results, as stated in the <a href="Proposal & Award Policies & Procedures Guide (PAPPG">Procedures Guide (PAPPG)</a>, Principal Investigators (PIs) are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the data, samples, physical collections, and other supporting materials created or gathered in the course of work under NSF grants.

The Division of Earth Sciences requires that full data sets, derived data products (e.g., model results, output, and workflows), software, and physical collections must be made publicly accessible within two (2) years of final collection. This two-year period may be extended under exceptional circumstances, but only by written agreement between the Principal Investigator and the National Science Foundation. For continuing observations or for long-term projects (deployments lasting > 36 months) where telemetry solutions allow, data are to be made public in real to near-real time. Provision must also be made for the archiving of physical samples collected as part of a project. A description of how this will be accomplished and how long the samples will be curated should be included as part of the Data Management Plan, described below.

All NSF proposals must include a document of no more than two pages uploaded under "Data Management Plan" in the supplementary documentation section of the proposal. This supplementary document should describe what data/samples will be collected, what analyses will be done, and how the project will provide open and rapid access to samples, data, derived data products (e.g., models and model output), and other information on the project during and after the project's completion. Some types of data may be considered "final" at different stages of processing in different fields. Thus, PIs should define, in their data management plans, in what state they would consider their data to be final and ready for public access. In addition, the Data Management Plan also should specifically discuss how the investigators will achieve

the specific EAR data archiving and reporting requirements described in this document. If the project is not expected to generate new data, samples or derived data products, the Data Management Plan should include a statement that no detailed plan is needed, accompanied by a clear justification. See the <u>PAPPG</u> for additional information. Some programs within the Division of Earth Sciences have specific guidelines regarding data and sample acquisition, permitting and repository. Please see the relevant program solicitation and consult with the cognizant Program Director for further information.

Preferred data and physical collection archives and centers can be found in the Apendix or through contact with the cognizant Program Director of the program. Where no repository or archive exists for collected data and samples, the PI is required to identify a preservation plan in the Data Management Plan that complies with the general philosophy of sharing research products and data within two years of collection as described above. This could include a museum- or university-hosted repository if that repository is intended to be curated long-term (as an example: The University of Michigan's <a href="Deep Blue">Deep Blue</a> data archive). Any limit on access to data, samples, or other information beyond the two-year moratorium period must be based on compelling justification, documented in the Data Management Plan of the proposal, or approved by the cognizant Program Director.

PIs are required to provide updates on the status of metadata and data archival in Annual Project Reports. Compliance with the project Data Management Plan must be documented in the Final Project Report. If not deposited in an EAR-identified federally-funded repository, URL's for archived metadata and data must be included in these reports in the section entitled "Products-Websites." Where the Final Report is due before the required date of sample or data submission, the PI must report plans for final data/sample submission. The PI should notify the cognizant Program Director by e-mail after final data and/or sample submission has occurred, even if this is after the end date of the award.